

was declared death based on the absence of electrical and mechanical cardiac activity.

This has been the first case of controlled DCD carried out in our PICU, and we considered that sharing this information would be relevant, as many health care professionals are still unfamiliar with the process and few guidelines have been published on DCD in paediatric patients.⁴ To increase the possibility of transplantation in this age group, the Organización Nacional de Trasplantes (National Transplant Organization of Spain), in the framework of Plan 50 × 22 (to achieve 50 donors per million inhabitants in the 2018–2022 period), proposed establishing guidelines in collaboration with paediatrics and neonatology associations on paediatric donation in general and paediatric donation after circulatory death in particular.⁶

In conclusion, in the field of paediatrics, controlled organ donation after circulatory death should be considered in any patient in whom withdrawal of life-sustaining therapies is anticipated. This approach could increase the number of potential donors, but specific protocols need to be developed and its particularities in the paediatric population need to be investigated to extend this practice to paediatric patients.

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Suitability and validation of WhatsAppTM as a method of communicating with family[☆]



Predisposición y validación del uso de WhatsApp[®] como método de comunicación con familias

Dear Editor:

WhatsApp[®] is the leading instant messaging application. There is also a separate application (WhatsApp[®] Business) that provides tools to automate, sort and quickly respond to messages. It offers end-to-end encryption, which guarantees the appropriate level of privacy required for the exchange of medical information.¹ There is a growing interest in research on this form of communication within the framework of the doctor/patient relationship, but only a few studies have been published in the literature, none of

them in the field of paediatrics.^{2,3} The aim of our study was to assess the patterns of use of this application by families, and to establish their level of satisfaction with it.

We conducted a descriptive qualitative study in a series of families recruited by consecutive sampling that visited a private clinic staffed by 3 paediatricians between May and October 2018. The legal guardians of the patients signed an informed consent form handed out by the clerical staff of the clinic, which adhered to current regulation on personal data protection.⁴ The WhatsApp[®] Business application was installed on a mobile device that was exclusively dedicated to this purpose and exclusively owned by the clinic. We set up a schedule for messaging for each physician based on their availability, with preferential use of the desktop version of the software (WhatsApp[®] Web), with automated delivery of prewritten messages to expedite the response process. We collected general information on messaging: total number of messages sent out, delivered, read and received. We also collected data on the pattern of use of the service by families: day and time, need of in-person visit, response time and most frequent reasons for consultation. At the end of the study period, we sent families a 12-item questionnaire to rate their experiences (Fig. 1). We sent the questionnaire (Google[®] Forms) through the MailChimp[®] email campaign platform. We analysed the data with the Google[®] Spreadsheets platform.

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Satisfaction survey

1. Strongly agree/agree/do not agree or disagree/disagree/strongly disagree with the following statements:
 - 1.1. WhatsApp facilitates access to my paediatrician
 - 1.2. More doctors should use WhatsApp
 - 1.3. If I could not send WhatsApp messages to the paediatrician, I would miss having this option
 - 1.4. I find WhatsApp consultations with my paediatrician useful
 - 1.5. I am worried about hackers or the stealing of medical data
 - 1.6. I can get answers to most of what I ask about using WhatsApp
 - 1.7. WhatsApp is making me grow apart from my paediatrician
 - 1.8. In my experience using WhatsApp with my paediatrician, the answers I have received have been helpful
 - 1.9. In my experience using WhatsApp with my paediatrician, the answers I have received have helped alleviate my fears or concerns
2. Frequency of use of WhatsApp to communicate with my paediatrician: more than once a month/once a month/less than once a month/never
3. I have sent photos or videos through WhatsApp: yes/ no
4. Preferred means to communicate with my paediatrician: WhatsApp/ email/ phone.

Figure 1 Satisfaction survey.

In the period under study, the clinic received 2160 in-person visits (1982 routine checkups, 178 initial visits). The clinic also received 352 consultations made directly through WhatsApp® (1692 received messages and 1227 sent out) from 180 families (1.95 consultations per family). Most

were received on weekdays (88.3%) and in the morning (53.7%). Of these total, 29.5% required an in-person follow-up visit. We responded to 81.3% of the messages received within 1 hour. The most frequent reasons for consultation were administrative issues (22.5%), infectious diseases

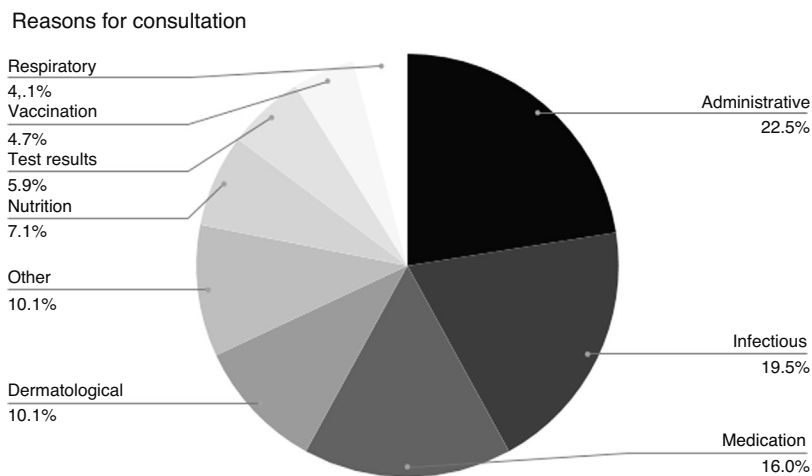


Figure 2 Main reasons for consultation through WhatsApp.

(19.5%) and questions about treatment (16%) (Fig. 2). We received responses to the satisfaction survey from 149 families (82.7%), and found that overall, they agreed or strongly agreed that WhatsApp® facilitated access to the paediatrician (95.2%), that more medical providers should use WhatsApp® (98.2%), that they would miss being able to send WhatsApp messages® if this option was removed (68.3%) and that they found consultations through WhatsApp® useful (95.9%). Half of the families (52.8%) expressed concerns about security. In addition, 81.2% considered that the concerns expressed through WhatsApp® were addressed and were satisfied with the response they received (82.5%), which relieved fears and anxiety (83.1%). The families did not feel that this platform made them grow apart from their paediatrician (87.6%). Of all families, 58.7% reported using this means of contact less than once a month, and 39.4% reported having submitted pictures or videos. WhatsApp® was the method preferred by most to contact the paediatrician (70.4%), followed by phone calls (35.9%) and email (14.8%).

Messaging offers 2 main advantages over conventional phone calls: asynchrony and ubiquity. This has significant benefits compared to traditional communications through the telephone, which involved delays and interruptions. The fact that most consultations could be resolved directly through this system could significantly contribute to decongest and streamline health care delivery. Families declared that the use of WhatsApp® increased the quality of communication with the paediatrician. As for the limitations of our study, the fact that it was conducted in a single private clinic restricts the generalisation of its results, as the system would have to be introduced in different geographical areas and populations of varying socioeconomic status. Another limitation is that the questionnaire used in the satisfaction survey was not a validated instrument, although the response rate was substantial. It would also be interesting to replicate this study in the months that the clinic receives the most visits. The results of our study cannot be generalised, but the patterns of use by the families and their subsequent comments demonstrate that this is a tool that improves communication with patients. In our role as

paediatricians, we can be leaders in the use of information and communication technologies (ICTs)^{5,6} and are among the medical specialists that are best positioned to transform health care in this regard.

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Descriptive analysis of mobile phone applications on breastfeeding[☆]



Análisis descriptivo de aplicaciones móviles sobre lactancia materna

Dear Editor:

The advantages of breastfeeding (BF) are recognised worldwide.¹ However, in spite of this awareness and the different strategies implemented internationally for its pro-

motion and support, the objectives established by the World Health Organization (WHO) for the optimal duration of BF are not being met.²

On the other hand, we are undergoing a profound technological revolution, and information and communication technologies (ICTs) have irrupted with tremendous force and changed the paradigm of health care delivery. In Spain, the report *Indicadores de la Sociedad de la Información por género 2018* (Indicators of the Information Society by Sex, 2018) of the Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información (National Surveillance Agency of Telecommunications and the Information Society, ONTSI) showed that 67.3% of the Spanish population had used the internet to obtain health information in recent months.³ One of the areas that is growing fastest in the field of ICTs in health care is mobile phone applications (apps). At present, there are 22 million active app users in Spain, and the number is increasing.⁴

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